

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P510481

Luminaire Tested: **CTN-CA10-310-730-U-T4**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510481  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-310-730-U-T4  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 46942 lumens  
Efficiency: N/A  
Efficacy: 150.3 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U0 - G5

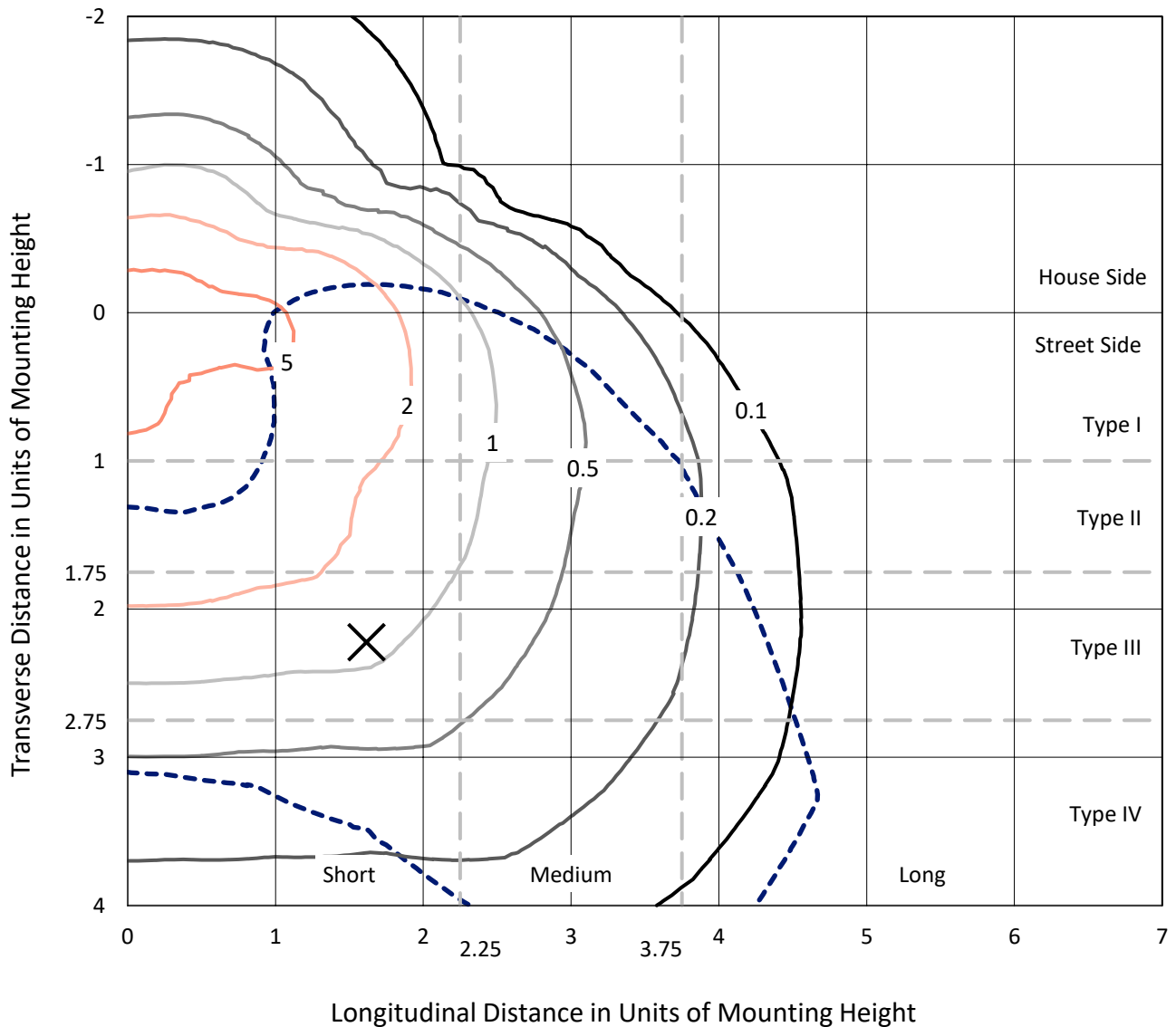
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

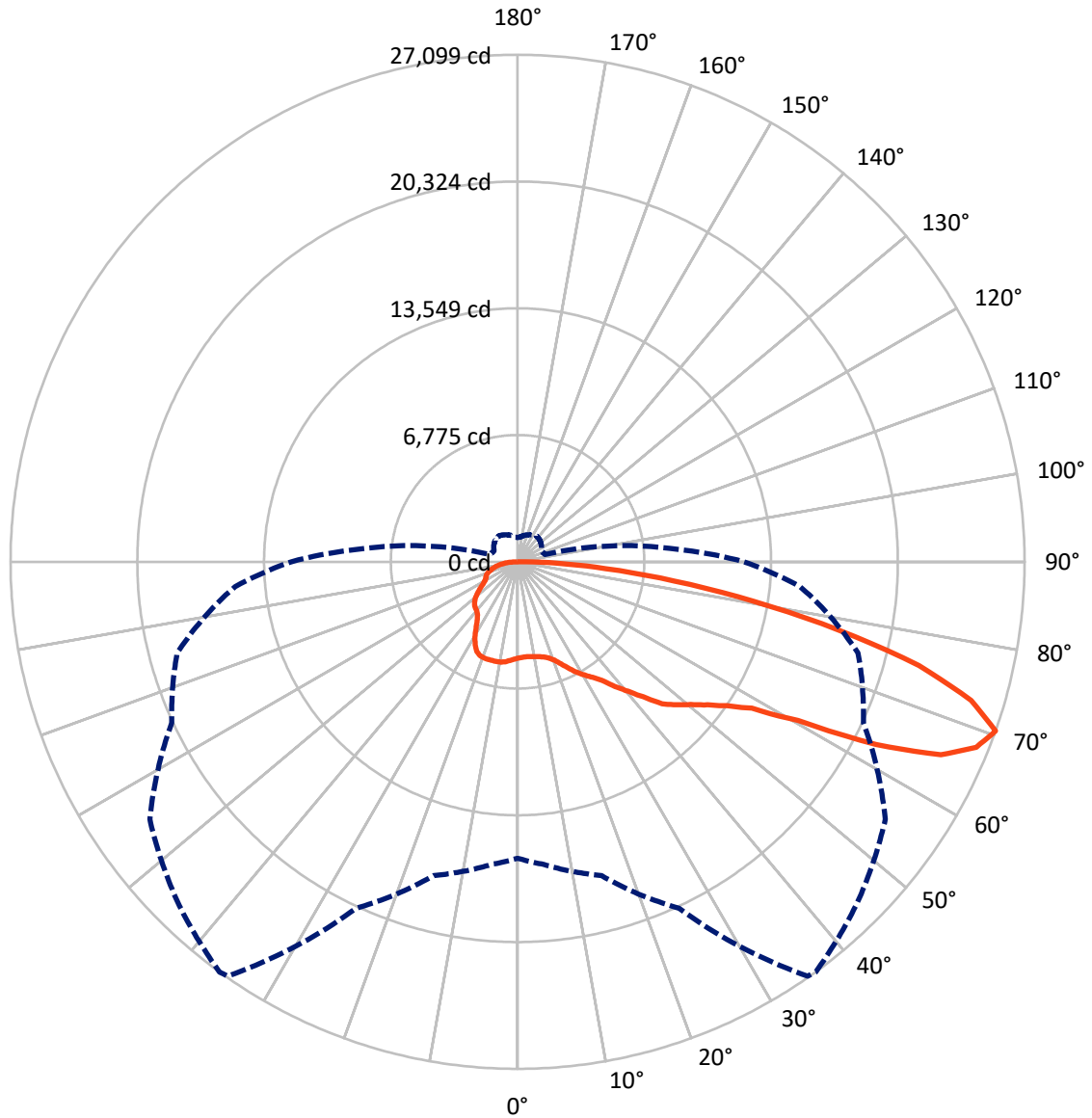
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.9 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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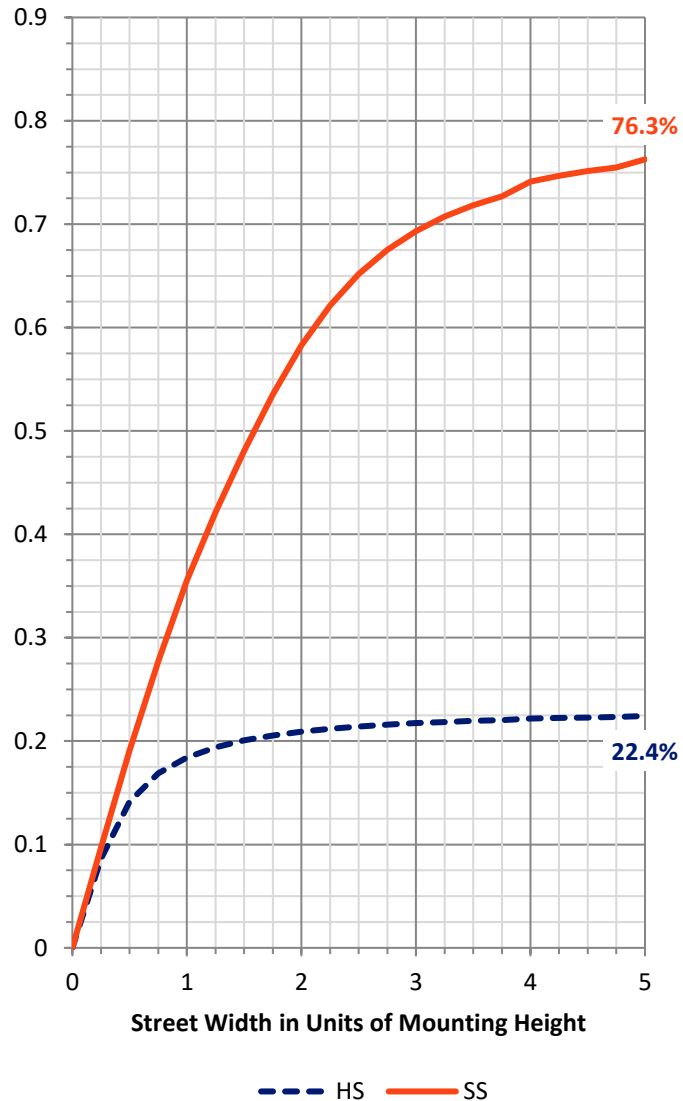
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10695.4	0.0	10695.4
	% Fixture	22.8	0.0	22.8
<b>Street Side</b>	Lumens	36246.6	0.0	36246.6
	% Fixture	77.2	0.0	77.2
<b>Total</b>	Lumens	46942.0	0.0	46942.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	498.1	1.1
10°-20°	1539.9	3.3
20°-30°	2777.7	5.9
30°-40°	4302.2	9.2
40°-50°	6535.0	13.9
50°-60°	9058.0	19.3
60°-70°	11778.5	25.1
70°-80°	8698.3	18.5
80°-90°	1754.2	3.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	46942.0	100.0
0°-180°	46942.0	100.0

**Coefficient of Utilization**



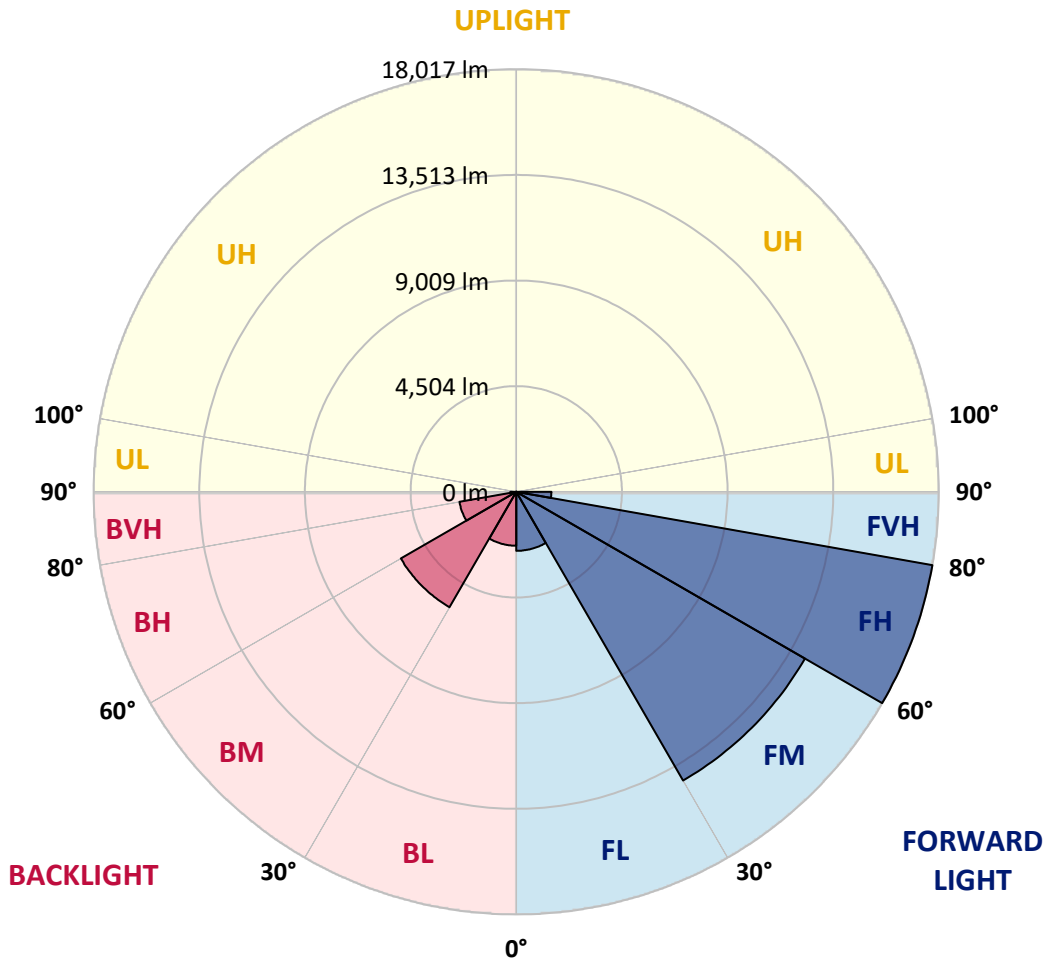
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2516.6	5.4			
FM (30°-60°)	14213.9	30.3			
FH (60°-80°)	18017.4	38.4			G5
FVH (80°-90°)	1498.7	3.2			G5
BL (0°-30°)	2299.2	4.9	B3/2500		
BM (30°-60°)	5681.3	12.1	B4/8500		
BH (60°-80°)	2459.4	5.2	B3/2500		G3/2500
BVH (80°-90°)	255.6	0.5			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5
2.5°	5110.4	5103.6	5099.8	5107.5	5110.4	5111.4	5113.4	5111.4	5106.6	5124.1	5145.4
5°	5111.4	5107.5	5099.8	5093.0	5093.0	5093.0	5093.9	5116.3	5126.0	5124.1	5150.3
7.5°	5119.2	5116.3	5101.7	5096.8	5108.5	5112.4	5131.8	5125.0	5135.7	5153.2	5175.6
10°	5120.2	5116.3	5103.6	5114.3	5147.4	5153.2	5162.0	5181.4	5185.3	5206.7	5229.0
12.5°	5129.9	5129.9	5134.7	5158.1	5193.1	5199.9	5232.9	5248.5	5271.8	5282.5	5309.7
15°	5181.4	5180.4	5192.1	5218.3	5274.7	5278.6	5319.4	5366.1	5383.6	5409.8	5453.5
17.5°	5303.9	5309.7	5310.7	5330.1	5397.2	5399.1	5466.2	5509.9	5549.8	5596.4	5696.5
20°	5594.5	5583.8	5572.1	5572.1	5598.4	5612.0	5663.5	5733.5	5815.1	5897.7	6015.3
22.5°	5959.9	5981.3	5938.5	5916.2	5928.8	5913.3	5952.1	6008.5	6103.8	6227.2	6375.9
25°	6396.3	6398.3	6395.3	6305.0	6276.8	6286.5	6318.6	6371.0	6497.4	6595.6	6811.3
27.5°	6822.0	6813.3	6782.2	6686.9	6659.7	6673.3	6672.3	6817.2	6946.4	7071.8	7325.5
30°	7208.9	7232.2	7176.8	7016.4	7019.3	7017.4	7062.1	7248.7	7484.9	7718.2	7978.6
32.5°	7891.2	7820.2	7745.4	7428.5	7370.2	7363.4	7389.6	7667.6	8017.5	8411.1	8724.1
35°	8533.6	8516.1	8442.2	8120.5	7783.3	7777.4	7741.5	8079.7	8571.5	9300.5	9691.2
37.5°	9190.6	9165.4	9092.5	8818.4	8483.1	8451.0	8148.7	8519.0	9183.8	10340.4	10897.4
40°	9974.0	9958.5	9845.7	9494.9	9150.8	9102.2	8788.3	8980.7	9956.5	11725.5	12118.1
42.5°	10661.2	10658.3	10529.0	10203.4	9910.8	9862.2	9595.0	9795.2	11030.5	13082.3	13313.6
45°	11165.6	11242.4	11248.2	11062.6	10860.4	10817.7	10746.7	11022.7	12272.7	14313.7	14279.7
47.5°	11591.3	11657.4	11588.4	11493.2	11424.2	11427.1	11536.9	12085.1	13499.2	15386.7	15122.4
50°	12302.8	12262.0	11903.3	11846.9	11934.4	11985.9	12304.7	13232.0	14903.7	16393.7	15878.5
52.5°	13329.1	13172.7	12469.0	12354.3	12685.7	12705.2	13212.5	14257.3	16307.2	17257.7	16570.6
55°	14733.6	14604.3	13809.3	13279.6	13446.8	13578.0	14292.3	15308.0	17453.1	18070.3	17103.2
57.5°	16809.7	16819.4	16171.1	15183.6	14615.0	14755.0	15312.9	16329.5	18399.7	18750.6	17435.6
60°	18473.6	18781.7	18588.3	18137.3	17320.9	17225.6	16800.9	17393.8	19208.4	19328.9	17753.4
62.5°	19627.3	19767.3	20432.1	20527.3	21460.4	21500.2	19466.0	18640.8	20096.7	19708.0	17820.5
65°	19569.0	19655.5	20706.2	21985.2	24741.6	24865.1	23674.4	20527.3	20705.2	19877.1	17625.1
67.5°	18206.3	18336.6	19672.0	22063.0	26490.2	26443.5	25688.3	23153.5	20905.4	19605.9	16694.0
70°	15839.7	16241.1	17362.7	20423.3	27036.4	27098.6	25706.8	23992.3	20389.3	18839.1	15141.8
72.5°	13055.1	13181.4	14240.8	17665.9	25439.5	25348.1	24653.2	22885.2	19456.2	17452.1	12425.2
75°	9928.3	9928.3	11211.3	14078.5	21846.2	22167.0	22437.2	20727.5	17236.3	14224.3	8460.7
77.5°	6590.7	6826.9	7860.1	10579.5	17292.7	17529.9	18462.9	17667.9	14112.5	10430.8	3864.4
80°	3496.1	3525.2	4633.2	7030.0	12368.9	12816.0	14098.9	13626.6	10150.9	4886.9	976.8
82.5°	1222.7	1334.5	2037.2	4074.4	8149.7	8428.6	9353.0	8097.2	3585.5	1081.8	540.4
85°	607.5	628.8	897.1	1940.0	4588.5	4723.6	5464.2	3153.9	577.3	472.4	367.4
87.5°	292.6	299.4	344.1	694.0	1994.4	2086.7	2209.2	1026.4	213.8	179.8	159.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5	5141.5
2.5°	5150.3	5159.0	5175.6	5180.4	5168.8	5190.1	5210.6	5229.0	5228.1	5234.9	5259.2
5°	5162.0	5180.4	5197.9	5229.0	5259.2	5276.6	5293.2	5308.7	5313.6	5328.2	5342.7
7.5°	5197.9	5216.4	5256.2	5310.7	5312.6	5356.3	5384.5	5389.4	5393.3	5393.3	5427.3
10°	5253.3	5287.3	5351.5	5389.4	5423.4	5408.8	5438.0	5419.5	5405.9	5411.7	5435.1
12.5°	5348.6	5378.7	5471.0	5512.8	5481.7	5475.9	5446.7	5404.9	5357.3	5352.5	5373.8
15°	5498.2	5554.6	5637.2	5677.1	5599.3	5530.3	5432.2	5346.6	5254.3	5220.3	5233.9
17.5°	5739.3	5807.3	5897.7	5870.5	5728.6	5592.5	5430.2	5249.4	5070.6	4946.2	4978.3
20°	6092.1	6142.6	6216.5	6106.7	5899.7	5675.1	5408.8	5123.1	4820.8	4594.3	4568.1
22.5°	6462.4	6539.2	6494.5	6291.4	6020.2	5707.2	5364.1	4939.4	4471.9	4188.1	4145.3
25°	6908.5	6933.8	6779.3	6473.1	6054.2	5656.7	5219.3	4671.1	4115.2	3847.9	3835.3
27.5°	7381.9	7324.5	7036.8	6556.7	6016.3	5507.0	4928.7	4247.4	3792.5	3556.3	3519.4
30°	7916.4	7783.3	7249.7	6565.4	5873.4	5215.4	4561.3	3915.9	3530.1	3292.9	3255.0
32.5°	8604.6	8290.6	7447.0	6475.0	5572.1	4787.8	4120.0	3633.1	3293.9	3055.8	3021.8
35°	9484.2	8954.5	7656.0	6311.8	5200.8	4360.1	3754.6	3393.0	3102.4	2815.7	2770.0
37.5°	10497.9	9880.7	7905.7	6105.7	4793.6	3984.0	3507.7	3240.4	2960.5	2635.9	2581.5
40°	11675.9	10807.9	8290.6	5859.8	4428.1	3712.8	3388.2	3188.0	2881.8	2543.6	2481.4
42.5°	12696.4	11788.6	8748.4	5595.4	4083.1	3487.3	3334.7	3153.0	2832.2	2474.6	2403.6
45°	13640.2	12598.3	9195.5	5274.7	3719.6	3332.8	3270.6	3065.5	2744.8	2389.0	2315.2
47.5°	14407.0	13252.4	9584.3	4980.2	3429.0	3190.9	3130.6	2899.3	2598.0	2286.0	2231.6
50°	14996.0	13744.2	9797.1	4746.0	3121.9	3029.5	2949.8	2711.7	2422.1	2152.8	2106.2
52.5°	15598.6	14236.9	9902.1	4757.6	2836.1	2789.5	2707.8	2503.7	2282.1	2075.1	2024.5
55°	15949.5	14439.1	9791.3	4474.8	2573.7	2519.3	2448.3	2342.4	2210.2	2026.5	1978.9
57.5°	16154.6	14564.5	9454.0	3649.6	2257.8	2206.3	2218.0	2209.2	2100.4	1906.9	1863.2
60°	16302.3	14292.3	8763.0	2682.5	1988.6	1949.7	2045.9	2014.8	1920.5	1769.9	1733.0
62.5°	16182.8	13774.3	7518.9	2016.8	1768.9	1851.5	1936.1	1878.8	1750.5	1613.4	1570.7
65°	15453.8	12757.6	5715.0	1620.2	1698.0	1811.7	1879.7	1787.4	1657.2	1494.8	1475.4
67.5°	14127.1	10914.9	3370.7	1485.1	1644.5	1765.0	1821.4	1698.9	1584.3	1428.7	1405.4
70°	12102.6	8171.1	1505.5	1383.1	1551.2	1670.8	1707.7	1592.0	1467.6	1321.8	1298.5
72.5°	9007.9	4926.8	1014.7	1277.1	1413.2	1519.1	1560.0	1437.5	1349.0	1283.0	1276.2
75°	5002.6	1710.6	936.0	1156.6	1262.5	1357.8	1408.3	1321.8	1251.9	1161.5	1124.5
77.5°	1593.0	727.0	889.3	1034.1	1168.3	1247.0	1239.2	1109.0	1086.6	976.8	967.1
80°	635.6	633.7	822.3	846.6	997.2	1063.3	1045.8	881.5	910.7	846.6	821.3
82.5°	498.6	580.2	659.0	646.3	775.6	853.4	829.1	647.3	731.9	672.6	615.2
85°	379.1	508.3	422.8	420.8	541.4	633.7	649.3	497.6	498.6	453.9	404.3
87.5°	195.4	187.6	162.3	161.3	180.8	257.6	315.9	282.8	223.5	168.1	161.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)